

# CRU Annual Report 2002

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## *Content summary*

### *Conservation*

True to type trees in the ICG,T (L.A. Motilal)

The collaborative CRU/USDA cocoa DNA fingerprinting project: progress report (M. Boccaro, D.R. Butler, L.A. Motilal, A. Sankar, F.L. Bekele)

### *Characterisation*

Characterisation of accessions from the International Cocoa Genebank, Trinidad for some traits of economic interest (F.L. Bekele, G. Bidaisee, W. Mollineau and N. Persad)

### *Evaluation*

Field resistance of cocoa to Witches' Broom and Black Pod diseases (J-M. Thévenin, R. Umaharan, B.M. Latchman and S. Surujdeo-Maharaj)

Mass screening for resistance to Witches' Broom disease under greenhouse conditions (R. Umaharan, J-M. Thévenin, Y. Mosca and J. Bhola)

Development of an optimised inoculation method to identify resistance to Witches' Broom disease in cacao (S. Surujdeo-Maharaj)

### *Utilisation*

Enhancing cacao germplasm for resistance to Black Pod disease (A.D. Iwaro and V. Singh)

A holistic approach to cocoa (*Theobroma cacao* L.) quality assessment (D.A. Sukha, S.M. Bharath, S.S. Straker and D.R. Butler)

## **Publications and Presentations**

### **Conferences and Workshops**

#### Papers presented

Butler, D.R. and Sukha, D.A. (2002). The future of cocoa in Caribbean agriculture. Presented at the Agricultural Diversification Workshop, 17-18 January 2002, St. Augustine, Trinidad.

#### Posters presented

Motilal, L.A. (2002) Biotechnological solutions for Caribbean problems. Presented at Sci-TechKnoFest 2002, 12-21 April 2002, Centre of Excellence, Macoya, Trinidad.

### **Published papers**

Bekele, F.L., Iwaro, A.D. and Butler, D.R. (2002) Potential value of cacao germplasm at the International Cocoa Genebank, Trinidad (ICG,T). Pages 219-228 in: Proceedings of the 13th International Cocoa Research Conference, Vol. I. 9-14 October, 2000, Kota Kinabalu, Malaysia. Lagos, Nigeria: COPAL.

Butler, D.R. and Sukha, D.A. (2002) The future of cocoa in Caribbean agriculture. Pages 56-58 in: Proceedings of the Workshop on Status and Performance of Diversification Initiatives of Caribbean States, 17-18 January 2002. St. Augustine, Trinidad: Agriculture Diversification Programme, Faculty of Agriculture and Natural Sciences, the University of the West Indies.

Iwaro, A.D. and Butler, D.R. (2002) Germplasm enhancement for resistance to black pod and witches' broom diseases. Pages 3-10 in: Proceedings of the 13th International Cocoa Research Conference, Vol. I. 9-14 October, 2000, Kota Kinabalu, Malaysia. Lagos, Nigeria: COPAL.

Motilal L.A., Sounigo O., Thévenin J-M., Risterucci A-M., Pieretti I., Noyer J-L. and Lanaud C. (2002) *Theobroma cacao* L. : Genome map and QTLs for Phytophthora palmivora resistance. Pages 111-117 in: Proceedings of the 13th International Cocoa Research Conference, Vol. I. 9-14 October, 2000, Kota Kinabalu, Malaysia. Lagos, Nigeria: COPAL.

Sounigo O., Ramdahin S. and Christopher Y. (2002) Etude de la diversité génétique du cacaoyer à l'aide des RAPD. Pages 119-125 in: Proceedings of the 13th International Cocoa Research Conference, Vol. I. 9-14 October, 2000, Kota Kinabalu, Malaysia. Lagos, Nigeria: COPAL.

Sukha, D.A. and Butler D.R. (2002) Cocoa flavour research in Trinidad: recent developments. Pages 879-885 in: Proceedings of the 13th International Cocoa Research Conference, Vol. II. 9-14 October, 2000, Kota Kinabalu, Malaysia. Lagos, Nigeria: COPAL.

Surjdeo-Maharaj, S., Iwaro, A.D. and Umaharan, P. (2002) Assessment of genotype-isolate interaction in resistance of cacao to Phytophthora palmivora. Pages 473-480 in: Proceedings of the 13th International Cocoa Research Conference, Vol. I. 9-14 October, 2000, Kota Kinabalu, Malaysia. Lagos, Nigeria: COPAL.

### **Newsletter Articles**

Iwaro, A.D., Bekele, F.L. and Butler, D.R. (2002) Utilisation of cacao genetic resources at the International Cocoa Genebank, Trinidad. INGENIC Newsletter 7: 22-24.

Motilal, L.A., Butler, D.R. and Mooleedhar, V. (2002) Verification in global cacao germplasm collections. INGENIC Newsletter 7: 4-8.

Sukha, D.A. (2002) Training in chemical analysis of cocoa beans at CIRAD - Montpellier, France. Faculty of Science and Agriculture Newsletter 2: 9.

Sukha, D.A. (2002) Cocoa Research at the Marché aux chocolates 2001 - Paris. Faculty of Science and Agriculture Newsletter 2: 11.

#### **Other Reports**

Motilal, L.A. (2002) Molecular Approach to crop improvement. Brochure for distribution at Sci-TechKnoFest 2002, 12-21 April 2002, Centre of Excellence, Macoya, Trinidad.

Sukha, D.A. and Mujaffar, S. (2002). Value added products from cocoa processing - Options for development. In: Report of the Ministerial Committee for the Revitalisation of the cocoa industry in Trinidad and Tobago, September 2002. Port of Spain, Trinidad.